CLAIMS

What is claimed is:

1.   A method for determining an optimal bid for an item in a market, said

method comprising:

a)   selecting characteristics of said market;

b)   selecting a bidding model;

c)   estimating a structure of said market;

d)   determining a bid function; and

e)   determining said optimal bid.

2.   The method as recited in Claim 1, wherein said step a) comprises:

receiving a first user input, wherein said first user input comprises

information identifying an item to be bid on;

accessing a database;

retrieving historical bids data from said database;

retrieving auction characteristics data from said database, wherein said

auction characteristics data comprise information relating to historical auctions

of items similar to said item to be bid on;

outputting said historical bids data; and

outputting said auction characteristics data.

3.   The method as recited in Claim 1, wherein said step b) comprises:

receiving auction characteristics data;

accessing a database;

retrieving from said database said bidding model, wherein said bidding

5   model is selected based on a corresponding relevance of said auction

characteristics data; and

outputting said bidding model.

4.   The method as recited in Claim 1, wherein said step c) comprises:

10   receiving said bidding model;

receiving historical bids data;

expressing unobservable variables in terms of observable bids, wherein

said unobservable variables are expressed in terms of observable bids by

inverting said bidding model;

15   transforming said historical bids data to a sample of inverted bids,

wherein said historical bids data are transformed by inverting said bidding

model;

estimating a structure of said market, wherein said sample of inverted

bids receives application of statistical density estimation techniques to obtain

20 said structure; and

outputting said structure.

5.   The method as recited in Claim 1, wherein said step d) comprises:

receiving a second user input,

receiving a structure;

generating a bid function, wherein said bid function is based on said

5   structure and said second user input; and

outputting said bid function.

6.   The method as recited in Claim 5, wherein said second user input

comprises:

10   an auction format;

a valuation of said item; and

an expected number of rival bidders.

7.   The method as recited in Claim 1, wherein said step e) comprises:

15   receiving a third user input, wherein said third user input comprises an

evaluation criteria;

receiving said bid function;

calculating said optimal bid based on said third user input and said bid

function; and

20   outputting said optimal bid.

8.   A computer system comprising:

a bus;

a memory interconnected with said bus; and

a processor interconnected with said bus, wherein said processor executes a

method for determining an optimal bid for an item in a market, said method

5   comprising:

a)   selecting characteristics of said market;

b)   selecting a bidding model;

c)   estimating a structure of said market;

d)   determining a bid function; and

10   e)   determining said optimal bid.

9.   The computer system as recited in Claim 8, wherein said step a)

comprises:

receiving a first user input, wherein said first user input comprises

15   information identifying an item to be bid on;

accessing a database;

retrieving historical bids data from said database;

retrieving auction characteristics data from said database, wherein said

auction characteristics data comprise information relating to historical auctions

20   of items similar to said item to be bid on;

outputting said historical bids data; and

outputting said auction characteristics data.

10.   The computer system as recited in Claim 8, wherein said step b)

comprises:

receiving auction characteristics data;

5   accessing a database;

retrieving from said database said bidding model, wherein said bidding

model is selected based on a corresponding relevance of said auction

characteristics data; and

outputting said bidding model.

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11.   The computer system as recited in Claim 8, wherein said step c)

comprises:

receiving said bidding model;

receiving historical bids data;

15   expressing unobservable variables in terms of observable bids, wherein

said unobservable variables are expressed in terms of observable bids by

inverting said bidding model;

transforming said historical bids data to a sample of inverted bids,

wherein said historical bids data are transformed by inverting said bidding

20   model;

estimating a structure of said market, wherein said sample of inverted

bids receives application of statistical density estimation techniques to obtain

said structure; and

outputting said structure.

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12.   The computer system as recited in Claim 8, wherein said step d)

comprises:

receiving a second user input;

receiving a structure;

10   generating a bid function, wherein said bid function is based on said

structure and said second user input; and

outputting said bid function.

13.   The method as recited in Claim 12, wherein said second user input

15   comprises:

an auction format;

a valuation of said item; and

an expected number of rival bidders.

20   14.   The computer system as recited in Claim 8, wherein said step e)

comprises:

receiving a third user input, wherein said third user input comprises an evaluation criteria;

receiving said bid function;

calculating said optimal bid based on said third user input and said bid

5   function; and

outputting said optimal bid

15.   A computer readable medium for causing a computer system to execute the steps in a method for determining an optimal bid for an item in a market, said

10   method comprising:

a)   selecting characteristics of said market;

b)   selecting a bidding model;

c)   estimating a structure of said market;

d)   determining a bid function; and

15   e)   determining said optimal bid.

16.   The computer readable medium as recited in Claim 15, wherein said step a) comprises:

receiving a first user input, wherein said first user input comprises

20   information identifying an item to be bid on;

accessing a database;

retrieving historical bids data from said database;

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retrieving auction characteristics data from said database, wherein said

auction characteristics data comprise information relating to historical auctions

of items similar to said item to be bid on;

outputting said historical bids data; and

5   outputting said auction characteristics data.

17. The computer readable medium as recited in Claim 15, wherein said

step b) comprises:

receiving auction characteristics data;

10   accessing a database;

retrieving from said database said bidding model, wherein said bidding

model is selected based on a corresponding relevance of said auction

characteristics data; and

outputting said bidding model.

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18. The computer readable medium as recited in Claim 15, wherein said

step c) comprises:

receiving said bidding model;

receiving historical bids data;

20   expressing unobservable variables in terms of observable bids, wherein

said unobservable variables are expressed in terms of observable bids by

inverting said bidding model;

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transforming said historical bids data to a sample of inverted bids,

wherein said historical bids data are transformed by inverting said bidding

model;

estimating a structure of said market, wherein said sample of inverted

5   bids receives application of statistical density estimation techniques to obtain

said structure; and

outputting said structure.

19.   The computer readable medium as recited in Claim 15, wherein said

10   step d) comprises:

receiving a second user input;

receiving a structure;

generating a bid function, wherein said bid function is based on said

structure and said second user input; and

15   outputting said bid function.

20.   The method as recited in Claim 19, wherein said second user input

comprises:

an auction format;

20   a valuation of said item; and

an expected number of rival bidders.

21.   The computer readable medium as recited in Claim 15, wherein said

step e) comprises:

receiving a third user input, wherein said third user input comprises an

evaluation criteria;

5   receiving said bid function;

calculating said optimal bid based on said third user input and said bid

function; and

outputting said optimal bid.